

512,041

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number  
**WO 03/089125 A2**

- (51) International Patent Classification<sup>7</sup>: **B01J** [KR/KR]; 107-603 Samsanhyundai apt., Samsan-dong, Nam-gu, Ulsan-city 680-767 (KR). **KIM, In-Ki** [KR/KR]; 804-5 Sinjeong 4-dong, Nam-gu, Ulsan-city 680-014 (KR).
- (21) International Application Number: PCT/KR03/00800
- (22) International Filing Date: 18 April 2003 (18.04.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
10-2002-0022029 22 April 2002 (22.04.2002) KR
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW); Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM); European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR); OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: HYDROGENATION CATALYST, PREPARATION THEREOF, AND METHOD FOR THE PREPARATION OF GAMMA-BUTYROLACTONE FROM MALEIC ANHYDRIDE USING THE CATALYST

(57) Abstract: The present invention relates to a hydrogenation catalyst represented by the following formula 1, a method for the preparation thereof, and a method for preparing gamma-butyrolactone using this catalyst. The method for preparing gamma-butyrolactone from maleic anhydride using the catalyst of the invention prepared by stabilizing the precursor particles of copper oxide, zinc oxide, and manganese oxide with a silica exhibits high selectivity, high yield, and high productivity under the operation conditions of a low molar ratio of hydrogen with regard to the reactants, and enables the preparation of gamma-butyrolactone from maleic anhydride with long-term stability without requiring frequent re-activation of the catalyst: Formula (I) CuO(a)ZnO(b)MnO<sub>2</sub>(c)SiO<sub>2</sub>(d) wherein a, b, c, and d are represented on the basis of weight, wherein a is 20 to 90, b is 0.01 to 10, c is 0.01 to 5, and d is 5 to 50.



WO 03/089125 A2